CLAIMS

We claim:

1. A method of controlling capacity in a communication system, comprising:

receiving a request to establish a communication session between a plurality of subscribers;

making a determination that more than a threshold number of the subscribers are located in a common zone; and

responsive to the determination, barring at least one of the subscribers located in the common zone from participating in the session.

2. The method of claim 1, wherein the threshold number of subscribers is T subscribers, and wherein making a determination that more than the threshold number of the subscribers are located in a common zone comprises:

determining where each of the subscribers is located; and

determining that N of the subscribers are located in the common zone, wherein N is more than T.

3. The method of claim 1, wherein the threshold number of subscribers is T subscribers, wherein the plurality of subscribers comprises N subscribers located in the common zone, and wherein barring at least one of the subscribers from participating in the session comprises barring T - N = X of the subscribers from participating in the session.

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4. The method of claim 1, wherein the common zone is a zone selected from the group consisting of (i) a geographic area, (ii) a cell of a cellular communication system, (iii) a sector of a cell of a cellular communication system, (iv) a network, (v) a sub-network, and (vi) an enclosure.

5. The method of claim 1, wherein at least one of the subscribers is a mobile subscriber.

6. A method of controlling capacity in a communication system, comprising:

receiving a request to establish a communication session between a plurality of subscribers;

making a determination that X more than a threshold number of the subscribers are located in a common zone; and

responsive to the determination, barring the X more subscribers from participating in the session.

7. A method of capacity control in a wireless communication system, the wireless communication system including a plurality of service areas for serving mobile subscribers, the method comprising:

receiving a request to establish a communication session between a group of the mobile subscribers;

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making a determination that the group of mobile subscribers includes more than a threshold number of mobile subscribers operating in a given service area of the wireless communication system; and

in response to the determination, excluding at least one of the mobile subscribers located in the given service area from participating in the communication session.

8. The method of claim 7, wherein receiving a request to establish a communication session between a group of mobile subscribers comprises:

receiving a session initiation request from one of the mobile subscribers, the session initiation request identifying at least one other mobile subscriber with whom to establish the communication session.

9. The method of claim 7, wherein receiving a request to establish a communication session between a group of mobile subscribers comprises:

receiving a group session initiation request from one of the mobile subscribers, the group session initiation request representing a request to establish the communication session between the group of mobile subscribers.

10. The method of claim 9, further comprising:

determining which mobile subscribers are members of the group.

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11. The method of claim 7, wherein making a determination that the group of mobile subscribers includes more than a threshold number of mobile subscribers operating in a given service area of the wireless communication system comprises:

determining that a number of the mobile subscribers of the group are operating in the given service area; and

determining that the number exceeds the threshold.

12. The method of claim 11, wherein determining that a number of the mobile subscribers of the group are operating in the given service area comprises:

determining, respectively for each mobile subscriber of the group, in which service area the mobile subscriber is located.

13. The method of claim 12, wherein determining in which service area the mobile subscriber is located comprises:

querying a location system, and receiving in response from the location system an indication of the service area in which the mobile subscriber is located.

14. The method of claim 11, wherein the threshold is specific to the service area, the method further comprising:

determining the threshold for the service area, by reference to a data store.

15. The method of claim 7, further comprising:

setting the threshold based on a measure of load in the service area.

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16. The method of claim 7, wherein the wireless communication system comprises a cellular communication system, and wherein the service area is a geographic area selected from the group consisting of (i) a cell and (ii) a sector of a cell.

17. The method of claim 7, wherein the request to establish the communication session originates from an originating mobile subscriber, the method further comprising:

informing the originating mobile subscriber that at least one mobile subscriber has been excluded from participating in the communication session.

18. The method of claim 17, wherein informing the originating mobile subscriber that at least one mobile subscriber has been excluded from participating in the communication session comprises:

sending a message to the originating mobile subscriber, the message indicating that at least one mobile subscriber has been excluded from participating in the communication session.

19. The method of claim 18, wherein sending a message to the originating mobile subscriber comprises sending the message to the originating mobile subscriber via HTTP.

20. The method of claim 18, wherein the message identifies the at least one subscriber.

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21. The method of claim 7, wherein each mobile subscriber has a respective priority level, the method further comprising:

selecting the at least one mobile subscriber based on the priority level of the at least one mobile subscriber.

22. The method of claim 21, wherein selecting the at least one mobile subscriber based on the priority level of the at least one mobile subscriber comprises:

comparing the priority levels of the mobile subscribers in the group and thereby identifying the at least one mobile subscriber as having at least one lower priority than at least one other mobile subscriber of the group.

23. The method of claim 7, wherein the request to establish the communication session originates from an originating mobile subscriber, the method further comprising:

receiving from the originating mobile subscriber an indication of the at least one mobile subscriber.

24. A method of controlling capacity in a cellular communication system, the cellular communication system defining a number of sectors, the method comprising:

allowing up to only a threshold number of mobile stations in a given sector to engage in a conference session with each other at any given time; and

barring more than that threshold number of mobile stations from participating in the conference session.

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25. A system for controlling capacity in a communication system, the system comprising:

means for receiving a request to establish a communication session between a plurality of subscribers;

means for making a determination that more than a threshold number of the subscribers are located in a common location; and

means for barring at least one of the subscribers from participating in the session, in response to the determination.

26. A system for controlling capacity in a communication system, the system comprising:

at least one processor;

data storage holding threshold data and program instructions;

the threshold data indicating, for each of a plurality of service areas, a threshold number of subscribers that are allowed to engage in a communication session with each other in the service area;

the program instructions being executable by the at least one processor, in response to a request to establish a communication session among a group of subscribers, to:

reference the threshold data to determine the threshold number of subscribers that are allowed to engage in a communication session with each other in a given service area;

make a determination that the group of subscribers includes more than the threshold number of subscribers operating in the given service area; and

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responsive to the determination, bar a sufficient number of the subscribers from participating in the session so that at most the threshold number of subscribers operating in the given service area participate in the session.

27. A service agent coupled with a packet-switched network, the service agent being programmed to receive a request to initiate a communication session among a group of subscribers and to responsively (i) make a determination that the group includes more than a threshold number of subscribers operating in a given service area and (ii) responsive to the determination, truncate the group to include at most the threshold number of subscribers operating in the given service area.

28. The service agent of claim 27, wherein the service agent comprises a SIP proxy server, the service agent receiving the request as a SIP INVITE request.

29. The service agent of claim 27, wherein the service agent receives the request from a given subscriber, the service agent being further programmed to send to the given subscriber a message indicating that the group has been truncated.

30. The service agent of claim 29, wherein the service agent sends the message to the given subscriber via HTTP.

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31. The service agent of claim 27, wherein the service agent is programmed to refer to subscriber priority data to determine which subscriber(s) of the group to truncate from the group.

32. The service agent of claim 27, wherein the service agent receives the request from a given subscriber, the service agent further receiving from the given subscriber an indication of which subscriber(s) to truncate from the group.

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